



10/560.658

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PTO/SB/80 (04-05)  
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## POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(b).

I hereby appoint:

☒ Practitioners associated with Customer Number:

23370

OR

☐ Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

as attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(b).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(b) to:

☐ The address associated with Customer Number

OR

<input type="checkbox"/> Firm or Individual Name			
Address			
City	State	Zip	
Country			
Telephone	Email		

### Assignee Name and Address:

THE MORGAN CRUCIBLE COMPANY PLC  
Quadrant  
55-57 High Street  
Windsor, Berkshire SL4 1EP  
United Kingdom

A copy of this form, together with a statement under 37 CFR 3.73(b) (Form PTO/SB/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(b) may be completed by one of the practitioners appointed in this form if the appointed practitioner is authorized to act on behalf of the assignee, and must identify the application in which this Power of Attorney is to be filed.

### SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee

Signature		Date	2/2/06
Name	David Coker	Telephone	
Title	Secretary		

This collection of information is required by 37 CFR 1.31 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



**STATEMENT UNDER 37 CFR 3.73(b)**

Applicant/Patent Owner: Alan Robert Chapman, et al.

Application No./Patent No.: U.S. National Phase of PCT/GB2004/002642

Filed/Issue Date: 13 December 2005

Entitled: FLOW FIELD PLATE GEOMETRIES

THE MORGAN CRUCIBLE COMPANY PLC, a organization under the laws of the United Kingdom

(Name of Assignee)

(Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that it is:

1. ☒ the assignee of the entire right, title, and interest; or
2. ☐ an assignee of less than the entire right, title, and interest

The extent (by percentage) of its ownership interest is \_\_\_\_\_ %

in the patent application/patent identified above by virtue of either:

- A. ☒ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

OR

- B. ☐ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:

1. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

2. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

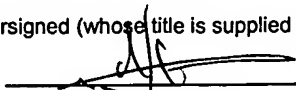
3. From: \_\_\_\_\_ To: \_\_\_\_\_  
The document was recorded in the United States Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

- ☒ Copies of assignments or other documents in the chain of title are attached.

[NOTE: A separate copy (i.e., a true copy of the original document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

  
\_\_\_\_\_  
Signature

27/2/06  
\_\_\_\_\_  
Date

David Coker  
\_\_\_\_\_  
Printed or Typed Name

\_\_\_\_\_  
Telephone Number

Secretary  
\_\_\_\_\_  
Title

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

# ASSIGNMENT

## **THIS ASSIGNMENT IS MADE BETWEEN**

Mark Christopher Turpin of, c/o Morgan Group Technology Limited, Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "TURPIN"); and

MORGANITE ELECTRICAL CARBON LIMITED, Upper Fforest Way, Morriston, Swansea South Wales SA6 8PP (hereinafter called "MECL")

**AS ASSIGNORS,**

**AND**

THE MORGAN CRUCIBLE COMPANY PLC, of Morgan House, Madeira Walk, Windsor, Berkshire SL4 1EP, England. (hereinafter called "MCC")

**AS ASSIGNEE.**

**WHEREAS:-**

1. TURPIN is employed in a technical capacity by MECL;
2. MECL is a wholly owned subsidiary of MCC;
3. TURPIN is an inventor for invention (hereinafter called "the Invention") subject of Patent Applications having the title, agent's reference, application number, and filing dates recited below:-

FLOW FIELD PLATE GEOMETRIES	BP-09-0361	GB 0316946.3	18 July 2003
FLOW FIELD PLATE GEOMETRIES	BP-09-0408	GB 0407638.6	2 April 2004
FLOW FIELD PLATE GEOMETRIES	FP-09-0855	PCT/GB2004/002642	17 June 2004



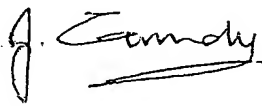
(hereinafter called "the Applications");


4. The parties hereto at all times have desired that MCC shall hold all rights in the Invention in the United Kingdom and elsewhere absolutely.

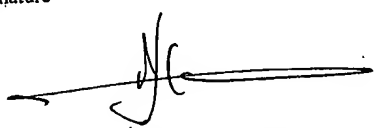
## **NOW THEREFORE THIS AGREEMENT WITNESSES THAT:-**

5. TURPIN, and MECL hereby confirm their assignment absolutely to MCC of all rights whatsoever that each may have in the Invention to hold to the full extent that each would have had had this Assignment not been made.
6. It is further confirmed that this assignment is effective to transfer the rights in each of the countries designated in PCT/GB2004/002642.
7. For the avoidance of doubt, and without restricting the generality of the above, it is confirmed that MCC had the right to file the Applications, and shall have the right to file applications for protection of whatever form and in whichever countries it may choose to do so.
8. It is further confirmed that MCC have the right to claim priority from the Applications.
9. All rights that MCC take under this assignment are freely assignable by MCC.

10. The consideration for the Assignment is in the premises above but in deference to those jurisdictions where a monetary consideration is required to effect an assignment MCC pays to each of the ASSIGNORS the sum of £1 (one pound sterling) the receipt, adequacy, and sufficiency of which the ASSIGNORS acknowledge on signature hereto.
11. The assignment has an effective date of the earliest of the Applications.

Signature 	Date 30/9/04
Mark Christopher Turpin	
Witnessed by: 	16 Willow Close, East Leake Leicestershire LE12 6PU
	16 WILLOW CLOSE EAST LEAKE, LEICS LE12 6PU

Signature 	Date 28-4-06
For and on behalf of Morganite Electrical Carbon Limited	Please type name and position of signatory

Signature 	Date 13 <sup>th</sup> APRIL 2006
For and on behalf of The Morgan Crucible Company plc	Please type name and position of signatory D. J. COKER COMPANY SECRETARY

# ASSIGNMENT

**THIS ASSIGNMENT IS MADE BETWEEN**

Ian Michael Mellor of, c/o Morgan Group Technology Limited, Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "MELLOR"); and

MORGAN GROUP TECHNOLOGY LIMITED, Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "MGT")

**AS ASSIGNORS,**

**AND**

THE MORGAN CRUCIBLE COMPANY PLC, of Morgan House, Madeira Walk, Windsor, Berkshire SL4 1EP, England. (hereinafter called "MCC")

**AS ASSIGNEE.**

**WHEREAS:-**

1. MELLOR is employed in a technical capacity by MGT;
2. MGT is a wholly owned subsidiary of MCC;
3. MELLOR is an inventor for invention (hereinafter called "the Invention") subject of Patent Applications having the title, agent's reference, application number, and filing dates recited below:-

FLOW FIELD PLATE GEOMETRIES	BP-09-0408	GB 0407638.6	2 April 2004
FLOW FIELD PLATE GEOMETRIES	FP-09-0855	PCT/GB2004/002642	17 June 2004

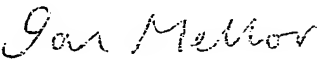


(hereinafter called "the Applications");

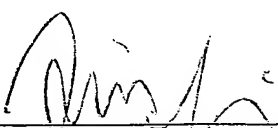
4. The parties hereto at all times have desired that MCC shall hold all rights in the Invention in the United Kingdom and elsewhere absolutely.

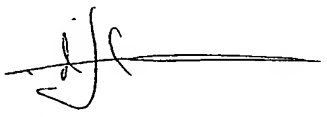
**NOW THEREFORE THIS AGREEMENT WITNESSES THAT:-**

5. MELLOR, and MGT hereby confirm their assignment absolutely to MCC of all rights whatsoever that each may have in the Invention to hold to the full extent that each would have had had this Assignment not been made.
6. It is further confirmed that this assignment is effective to transfer the rights in each of the countries designated in PCT/GB2004/002642.
7. For the avoidance of doubt, and without restricting the generality of the above, it is confirmed that MCC had the right to file the Applications, and shall have the right to file applications for protection of whatever form and in whichever countries it may choose to do so.
8. It is further confirmed that MCC have the right to claim priority from the Applications.
9. All rights that MCC take under this assignment are freely assignable by MCC.

10. The consideration for the Assignment is in the premises above but in deference to those jurisdictions where a monetary consideration is required to effect an assignment MCC pays to each of the ASSIGNORS the sum of £1 (one pound sterling) the receipt, adequacy, and sufficiency of which the ASSIGNORS acknowledge on signature hereto.
11. The assignment has an effective date of the earliest of the Applications.

Signature 	Date 24/03/04
Ian Michael MELLOR	
Witnessed by:	 E. M. MOUNTAIN
	 ANDREW DEIGHTON

Signature 	Date 24/3/04
For and on behalf of Morgan Group Technology Limited	Please type name and position of signatory DENNIS CHIENG COMPANY SECRETARY

Signature 	Date 13/12/05
For and on behalf of The Morgan Crucible Company plc	Please type name and position of signatory D. J. COKER COMPANY SECRETARY

## ASSIGNMENT

**THIS ASSIGNMENT IS MADE BETWEEN**

Alexandre Jouvray of, c/o Morgan Group Technology Limited, Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "JOUVRAY"); and  
MORGAN GROUP TECHNOLOGY LIMITED, Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "MGT")  
**AS ASSIGNORS,**

**AND**

THE MORGAN CRUCIBLE COMPANY PLC, of Morgan House, Madeira Walk, Windsor, Berkshire SL4 1EP, England. (hereinafter called "MCC")  
**AS ASSIGNEE.**

**WHEREAS:-**

1. JOUVRAY is employed in a technical capacity by MGT;
2. MGT is a wholly owned subsidiary of MCC;
3. JOUVRAY is an inventor for invention (hereinafter called "the Invention") subject of Patent Applications having the title, agent's reference, application number, and filing dates recited below:-

FLOW FIELD PLATE GEOMETRIES	BP-09-0408	GB 0407638.6	2 April 2004
FLOW FIELD PLATE GEOMETRIES	FP-09-0855	PCT/GB2004/002642	17 June 2004


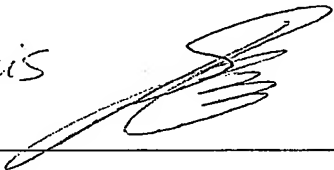

(hereinafter called "the Applications");


4. The parties hereto at all times have desired that MCC shall hold all rights in the Invention in the United Kingdom and elsewhere absolutely.

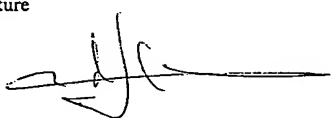
**NOW THEREFORE THIS AGREEMENT WITNESSES THAT:-**

5. JOUVRAY, and MGT hereby confirm their assignment absolutely to MCC of all rights whatsoever that each may have in the Invention to hold to the full extent that each would have had had this Assignment not been made.
6. It is further confirmed that this assignment is effective to transfer the rights in each of the countries designated in PCT/GB2004/002642.
7. For the avoidance of doubt, and without restricting the generality of the above, it is confirmed that MCC had the right to file the Applications, and shall have the right to file applications for protection of whatever form and in whichever countries it may choose to do so.
8. It is further confirmed that MCC have the right to claim priority from the Applications.
9. All rights that MCC take under this assignment are freely assignable by MCC.

10. The consideration for the Assignment is in the premises above but in deference to those jurisdictions where a monetary consideration is required to effect an assignment MCC pays to each of the ASSIGNORS the sum of £1 (one pound sterling) the receipt, adequacy, and sufficiency of which the ASSIGNORS acknowledge on signature hereto.
11. The assignment has an effective date of the earliest of the Applications.

Signature 	Date 27- 08- 04
Alexandre JOUVRAY	
Witnessed by:	Sylvain Jarrais 
	ANDREW DEIGHTON 

Signature 	Date 27/8/04
For and on behalf of Morgan Group Technology Limited	Please type name and position of signatory Dr. Stefan Kukula, Head of Computational Modelling Group,

Signature 	Date 13/12/05
For and on behalf of The Morgan Crucible Company plc	Please type name and position of signatory D. J. COKER COMPANY SECRETARY



## ASSIGNMENT

### **THIS ASSIGNMENT IS MADE BETWEEN**

Sylvain Jamais of, c/o Morgan Group Technology Limited, Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "JAMAIS"); and  
MORGAN GROUP TECHNOLOGY LIMITED, Bewdley Road, Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "MGT")

**AS ASSIGNORS,**

**AND**

THE MORGAN CRUCIBLE COMPANY PLC, of Morgan House, Madeira Walk, Windsor, Berkshire SL4 1EP, England. (hereinafter called "MCC")

**AS ASSIGNEE.**

**WHEREAS:-**

1. JAMAIS is employed in a technical capacity by MGT;
2. MGT is a wholly owned subsidiary of MCC;
3. JAMAIS is an inventor for invention (hereinafter called "the Invention") subject of Patent Applications having the title, agent's reference, application number, and filing dates recited below:-

FLOW FIELD PLATE GEOMETRIES	BP-09-0408	GB 0407638.6	2 April 2004
FLOW FIELD PLATE GEOMETRIES	FP-09-0855	PCT/GB2004/002642	17 June 2004

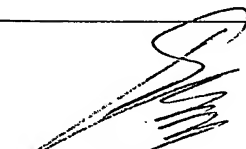

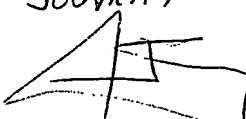
(hereinafter called "the Applications");


4. The parties hereto at all times have desired that MCC shall hold all rights in the Invention in the United Kingdom and elsewhere absolutely.

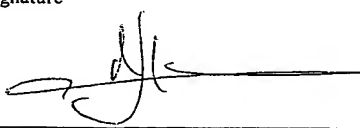
**NOW THEREFORE THIS AGREEMENT WITNESSES THAT:-**

5. JAMAIS, and MGT hereby confirm their assignment absolutely to MCC of all rights whatsoever that each may have in the Invention to hold to the full extent that each would have had had this Assignment not been made.
6. It is further confirmed that this assignment is effective to transfer the rights in each of the countries designated in PCT/GB2004/002642.
7. For the avoidance of doubt, and without restricting the generality of the above, it is confirmed that MCC had the right to file the Applications, and shall have the right to file applications for protection of whatever form and in whichever countries it may choose to do so.
8. It is further confirmed that MCC have the right to claim priority from the Applications.
9. All rights that MCC take under this assignment are freely assignable by MCC.

10. The consideration for the Assignment is in the premises above but in deference to those jurisdictions where a monetary consideration is required to effect an assignment MCC pays to each of the ASSIGNORS the sum of £1 (one pound sterling) the receipt, adequacy, and sufficiency of which the ASSIGNORS acknowledge on signature hereto.
11. The assignment has an effective date of the earliest of the Applications.

Signature 	Date 25/8/2004
Sylvain JAMAIS	
Witnessed by:	 ALEXANDRE DELHANTY
	ALEXANDRE JOUVRAY 

Signature 	Date 25/8/2004
For and on behalf of Morgan Group Technology Limited	Please type name and position of signatory Dr Stefan Kukula – Manager Computational Modelling Group

Signature 	Date 13/12/05
For and on behalf of The Morgan Crucible Company plc	Please type name and position of signatory D. V. COHEN COMPANY SECRETARY

## ASSIGNMENT

THIS ASSIGNMENT IS MADE BETWEEN

Alan Robert Chapman of, c/o Morgan Group Technology Limited, Bewdley Road,  
Stourport-on-Severn, Worcestershire DY13 8QR, England (hereinafter called "CHAPMAN");  
and

**MORGAN GROUP TECHNOLOGY LIMITED**, Bewdley Road, Stourport-on-Severn,  
Worcestershire DY13 8QR, England (hereinafter called "MGT")  
**AS ASSIGNORS,**

AND

THE MORGAN CRUCIBLE COMPANY PLC, of Morgan House, Madeira Walk, Windsor, Berkshire SL4 1EP, England. (hereinafter called "MCC")

**AS ASSIGNEE.**

**WHEREAS:-**

1. CHAPMAN is employed in a technical capacity by MGT;
2. MGT is a wholly owned subsidiary of MCC;
3. CHAPMAN is an inventor for invention (hereinafter called "the Invention") subject of Patent Applications having the title, agent's reference, application number, and filing dates recited below:-


FLOW FIELD PLATE GEOMETRIES	BP-09-0408	GB 0407638.6	2 April 2004
FLOW FIELD PLATE GEOMETRIES	FP-09-0855	PCT/GB2004/002642	17 June 2004

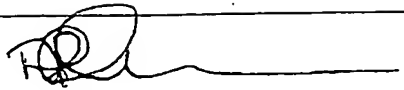
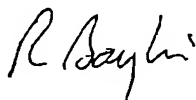
(hereinafter called "the Applications");

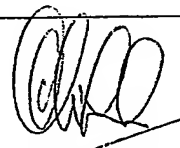
4. The parties hereto at all times have desired that MCC shall hold all rights in the Invention in the United Kingdom and elsewhere absolutely.

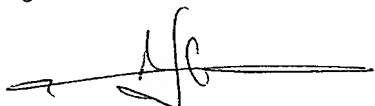
**NOW THEREFORE THIS AGREEMENT WITNESSES THAT:-**

5. CHAPMAN, and MGT hereby confirm their assignment absolutely to MCC of all rights whatsoever that each may have in the invention to hold to the full extent that each would have had had this Assignment not been made.
6. It is further confirmed that this assignment is effective to transfer the rights in each of the countries designated in PCT/GB2004/002642.
7. For the avoidance of doubt, and without restricting the generality of the above, it is confirmed that MCC had the right to file the Applications, and shall have the right to file applications for protection of whatever form and in whichever countries it may choose to do so.
8. It is further confirmed that MCC have the right to claim priority from the Applications.
9. All rights that MCC take under this assignment are freely assignable by MCC.
10. The consideration for the Assignment is in the premises above but in deference to those jurisdictions where a monetary consideration is required to effect an assignment MCC pays to each of the ASSIGNORS the sum of £1 (one pound sterling) the receipt, adequacy, and sufficiency of which the ASSIGNORS acknowledge on signature hereto.
11. The assignment has an effective date of the earliest of the Applications.

Signature 	Date 05/10/2004
---	-----------------

		05/10/2004
Alan Robert CHAPMAN		
Witnessed by:		
	05/10/04	

Signature 	Date
For and on behalf of Morgan Group Technology Limited	Please type name and position of signatory

Signature 	Date 13/12/05
For and on behalf of The Morgan Crucible Company plc	Please type name and position of signatory D-J COLE Company SECRETARY